

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-32. (Canceled)

Claim 33. (Currently Amended) A method for manufacturing a tyre for vehicle wheels, comprising the steps of:

producing a tyre;

inserting a plurality of metal studs into seats provided in a vulcanization mould;

retaining the plurality of metal studs in the seats;

inserting the tyre into the mould;

closing the mould;

vulcanizing the tyre; and

opening the mould to extract the vulcanized tyre;

wherein the tyre comprises a tread band,

wherein the mould includes means for retaining the plurality of studs in the seats, and the retaining means is separated from the plurality of studs when the mould is closed,

wherein, during the step of opening the mould, a predefined degree of clearance exists between lateral portions of each of the plurality of metal studs and one of the respective seats,

wherein a design of the mould allows the plurality of metal studs to partially project from an external surface of the tread band of the vulcanized tyre,

wherein the plurality of metal studs are oriented in a substantially perpendicular arrangement with respect to an external surface of the tread band, and

wherein, the predefined degree of clearance is such that during the step of opening the mould, the plurality of metal studs maintain the substantially perpendicular arrangement.

Claim 34. (Currently Amended) The method of claim 33, wherein the retaining means includes a magnet, which exerts a magnetic force, such that the studs are retained by said magnetic force.

Claim 35. (Previously Presented) The method of claim 33, further comprising chemically treating the studs with a bonding agent prior to inserting the plurality of metal studs.

Claim 36. (Previously Presented) The method of claim 33, further comprising providing the studs with one or more coating layers.

Claim 37. (Previously Presented) The method of claim 36, wherein at least one of the one or more coating layers is brass or an alloy comprising cobalt, copper, manganese, nickel, or zinc.

Claim 38. (Previously Presented) The method of claim 36, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electrolytic plating.

Claim 39. (Previously Presented) The method of claim 36, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electro-plating.

Claim 40. (Currently Amended) A method for manufacturing a tyre for a vehicle wheel, comprising:

- producing a tyre;
- inserting a plurality of metal studs into seats provided in a vulcanization mould;
- retaining the plurality of metal studs in the seats;
- inserting the tyre into the mould;
- closing the mould;
- vulcanizing the tyre; and
- opening the mould to extract the vulcanized tyre;

wherein the tyre comprises a tread band,

wherein the mould includes means for retaining the plurality of studs in the seats, and the retaining means is separated from the plurality of studs when the mould is closed,

wherein, during opening the mould, the plurality of metal studs are not subjected to any flexural stress,

wherein a design of the mould allows the plurality of metal studs to partially project from an external surface of the tread band of the vulcanized tyre,

wherein the plurality of metal studs are oriented in a substantially perpendicular arrangement with respect to the external surface, and

wherein, during opening the mould, the plurality of metal studs maintain the substantially perpendicular arrangement.

Claim 41. (Currently Amended) The method of claim 40, wherein the retaining means includes a magnet, which exerts a magnetic force, such that the studs are retained by said magnetic force.

Claim 42. (Previously Presented) The method of claim 40, further comprising chemically treating the studs with a bonding agent prior to inserting the plurality of metal studs.

Claim 43. (Previously Presented) The method of claim 40, further comprising providing the studs with one or more coating layers.

Claim 44. (Previously Presented) The method of claim 43, wherein at least one of the one or more coating layers is brass or an alloy comprising cobalt, copper, manganese, nickel, or zinc.

Claim 45. (Previously Presented) The method of claim 43, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electrolytic plating.

Claim 46. (Previously Presented) The method of claim 43, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electro-plating.

Claim 47. (Currently Amended) A method for manufacturing a tyre for a vehicle wheel, comprising:

producing a tyre;

inserting a plurality of metal studs into seats provided in a vulcanization mould;

retaining the plurality of metal studs in the seats;

inserting the tyre into the mould;

closing the mould;
vulcanizing the tyre; and
opening the mould to extract the vulcanized tyre;
wherein the tyre comprises a tread band,
wherein the mould includes means for retaining the plurality of studs in the seats, and the retaining means is separated from the plurality of studs when the mould is closed,
wherein, during opening the mould, the plurality of metal studs are not subjected to traction caused by friction against the seats,
wherein a design of the mould allows the plurality of metal studs to partially project from an external surface of the tread band of the vulcanized tyre,
wherein the plurality of metal studs are oriented in a substantially perpendicular arrangement with respect to the external surface, and
wherein, during opening the mould, the plurality of metal studs maintain the substantially perpendicular arrangement.

Claim 48. (Currently Amended) The method of claim 47, wherein the retaining means includes a magnet, which exerts a magnetic force, such that the studs are retained by said magnetic force.

Claim 49. (Previously Presented) The method of claim 47, further comprising chemically treating the studs with a bonding agent prior to inserting the plurality of metal studs.

Claim 50. (Previously Presented) The method of claim 47, further comprising providing the studs with one or more coating layers.

Claim 51. (Previously Presented) The method of claim 50, wherein at least one of the one or more coating layers is brass or an alloy comprising cobalt, copper, manganese, nickel, or zinc.

Claim 52. (Previously Presented) The method of claim 50, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electrolytic plating.

Claim 53. (Previously Presented) The method of claim 50, wherein at least one of the one or more coating layers comprises a brass coating layer provided by electro-plating.